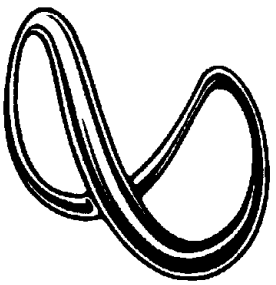


Infinity®

SUBWOOFERS

SSW-210

SSW-212

OWNER'S MANUAL

Attention

INFINITY SUBWOOFERS ARE WIRED FOR 120 VOLT, 60 Hz A.C. OPERATION. DO NOT CONNECT TO AN A.C. LINE HIGHER THAN 130 VOLTS, 60 Hz, OR TO AN A.C. LINE WITH A VOLTAGE OF 220-240 VOLTS, 50 Hz. THIS WILL SEVERELY DAMAGE THE SUBWOOFER'S POWER SUPPLY.

Introduction

We, at Infinity, would like to take this opportunity to thank you for choosing an Infinity Servo Subwoofer for your audio or video system and commend you on your choice. Your subwoofer has been designed to enhance the bass frequencies of any system, and it may be used with satellite speakers of any size and power handling capability. (The greatest bass enhancement will be obtained when the subwoofer is used in conjunction with speakers that do not have the ability to deliver deep, powerful bass.) The subwoofer may also be used individually or combined with another Infinity subwoofer of the same type for even more impressive bass.

Your Infinity Servo Subwoofer is a self-powered system which utilizes a specially designed servo-controlled low frequency power amplifier. When this high power is combined with the subwoofer's low frequency drivers, the result is extraordinarily high sound pressure levels without distortion.

Your Infinity Servo Subwoofer system is the ideal enhancement for audio/video home theater applications and has been specifically designed to reproduce the full impact of laser discs, surround sound and other multi-media sources by reproducing bass frequencies with exceptional depth and clarity.

We recommend you read this instruction manual thoroughly before connecting your subwoofer. Be sure to save the manual for future reference. Also save your bill of sale as it is required for warranty service.

Unpacking

After removing the subwoofer from its carton, check it carefully to make sure it was not damaged in shipment. If damage is present, report it immediately to your dealer or to the trucking firm that delivered it. Do not delay, for the longer you wait to report the damage, the longer it will take for your claim to be processed.

CAUTION: TO PREVENT FIRE OR ELECTRICAL SHOCK, DO NOT EXPOSE THIS SUBWOOFER TO RAIN OR EXCESSIVE MOISTURE. TO AVOID THE HAZARD OF SHOCK, DO NOT OPEN THE SUBWOOFER OR REMOVE THE REAR ALUMINUM PLATE. THERE ARE NO USER SERVICEABLE PARTS INSIDE. OBSERVE ALL WARNINGS AND CAUTIONS.

A Few Suggestions

Do not operate your subwoofer with the bass tone control and contour control turned to maximum boost. This may place undue strain on the subwoofer which could result in damage.

Always turn down your preamplifier's or receiver's volume to minimum when changing a record or switching inputs. When changing wiring, turn off the entire system including your subwoofer. This will prevent powerful transients from entering the speakers and will also prevent electrical energy from reaching you. Keep all connections out of the reach of children.

Positioning

Since the installation of a subwoofer is somewhat more complicated than installing full range speakers, it is essential you read this section very carefully prior to connecting the subwoofer to your system. Should you have questions relating to your installation, it is advisable to call either your dealer or Infinity Systems for advice.

Infinity Servo Subwoofers feature a variety of options for optimum positioning in your specific environment. The unit can be placed vertically, or, with the addition of optional end panels that mount easily to the sides of the unit (see your authorized Infinity dealer), the system functions as an attractive horizontal coffee table (see Diagram H on page 6), or can also be placed in the corner of the room. In the horizontal position, the system's woofers point downward, resulting in optimum bass response.

The performance of your Infinity Servo Subwoofer is directly related to its placement in the listening room and how you align the subwoofer with its satellite speakers. Setting the volume of the subwoofer in relationship to the left and right speakers is also of critical importance because it is essential that the subwoofer integrates smoothly with the entire system. Setting the subwoofer's volume level too high will result in overpowering, boomy bass. Setting the volume level too low will negate the effect of the subwoofer.

It is generally believed by most audio authorities that low frequencies (below 100 Hz) are non-directional and, therefore, placement of a subwoofer is not critical. While in theory it is true that extreme low frequencies are non-directional, the fact is when installing a subwoofer within the limited confines of a room, reflections, resonances, standing waves and absorptions generated by the room will strongly influence the performance of the subwoofer system. Moving the subwoofer as little as a few inches from side-to-side or front-to-rear may add or detract from bass intensity or clarity.

Here are several precautions to keep in mind before you begin to experiment with room placement:

1. When placing the subwoofer against a wall or into a corner be sure there is room behind the subwoofer for adequate ventilation. The aluminum heat sink located behind the subwoofer may become quite warm and will, therefore, require sufficient air around it for cooling.

2. Do not place objects on top of the subwoofer. They may fall off or vibrate during operation of the system.

3. The subwoofer must rest on a firm, solid surface otherwise annoying vibrations may be generated which could interfere with the music.

4. It is not critical for the drivers to be directed at the listener; however, for proper dispersion of the lower frequencies with a minimum amount of coloration, directing the sound into the room (rather than rearward into a wall or corner) is the recommended placement.

5. Do not place the subwoofer very close to a TV monitor, as this could result in picture smearing and distortion of color.

6. Infinity Servo Subwoofers may be added to any existing speaker system.

7. The subwoofer may be installed in various positions. Refer to the following diagrams.

DIAGRAM A. Subwoofer standing upright in between or on either side of the satellites. This will yield smooth, linear bass. As you move the subwoofer further back toward the rear wall, bass response will become heavier.

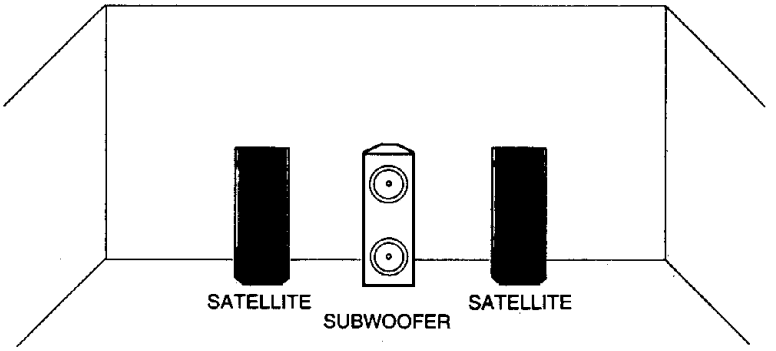


DIAGRAM B. Subwoofer may be located in either the left or right corner. This type of placement yields deep, powerful bass.

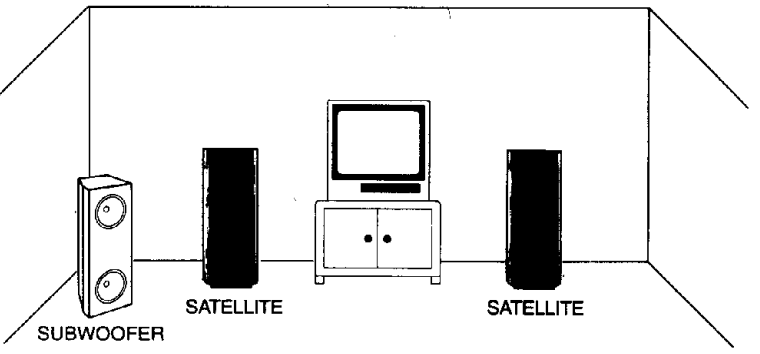


DIAGRAM C. Subwoofer placed on its side with woofers facing upward. This placement will yield smooth, detailed bass.

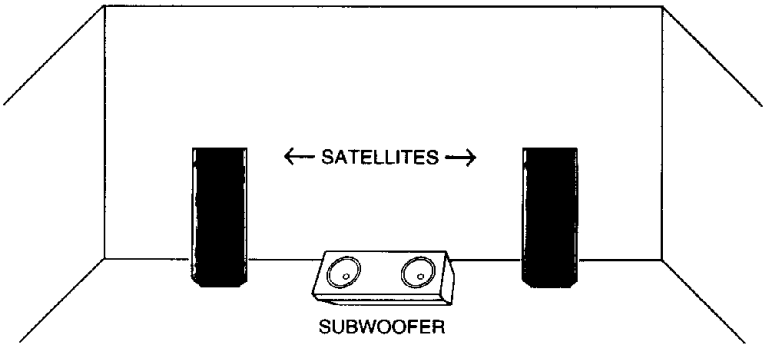


DIAGRAM D. Subwoofer placed on the floor (anywhere within the listening room) with drivers facing downward. This results in optimum coupling for deepest bass response. Separate optional end panels must be used for this installation. See your authorized Infinity dealer.

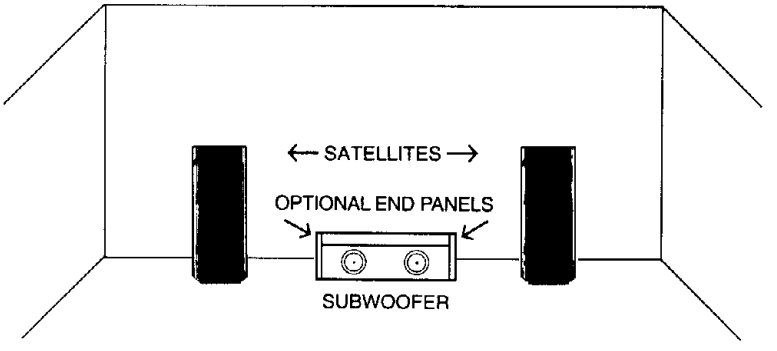
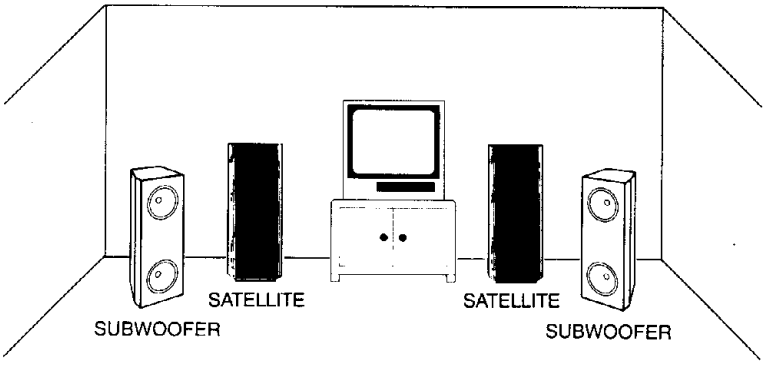


DIAGRAM E. Use of two subwoofers will noticeably increase bass response. The subwoofers may be placed on either side of the satellites, in the center between the satellites, in the corners, or on the floor facing up or down.



Installation of Feet

Included is a set of four feet for use with your Infinity Servo Subwoofer. Use the feet when installing the unit either vertically or horizontally, to protect flooring and to keep the unit firmly in place. The feet have adhesive backing which will permit you to fasten them permanently.

When the unit is positioned vertically (see Diagram F), install the four feet at each corner of the bottom panel.

When the unit is positioned horizontally on the floor (with the woofers pointed upward, Diagram G), place the feet at each corner of the bottom panel.

When the optional end panels are used to create a horizontal table (Diagram H), place the feet at each corner of the end panels.

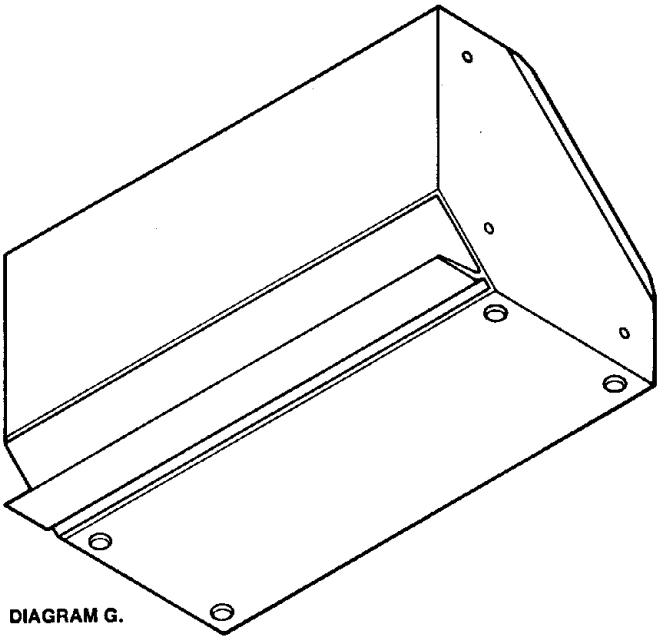


DIAGRAM G.

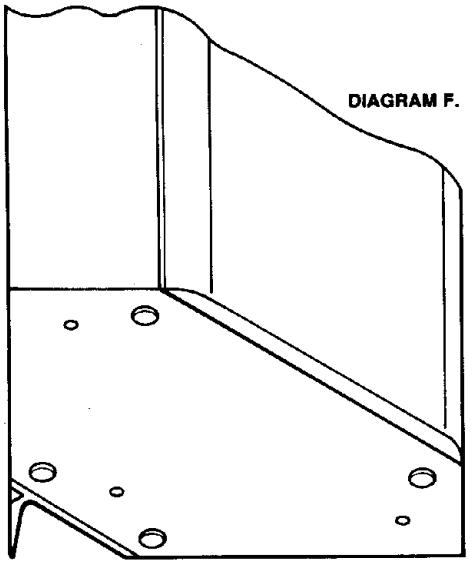


DIAGRAM F.

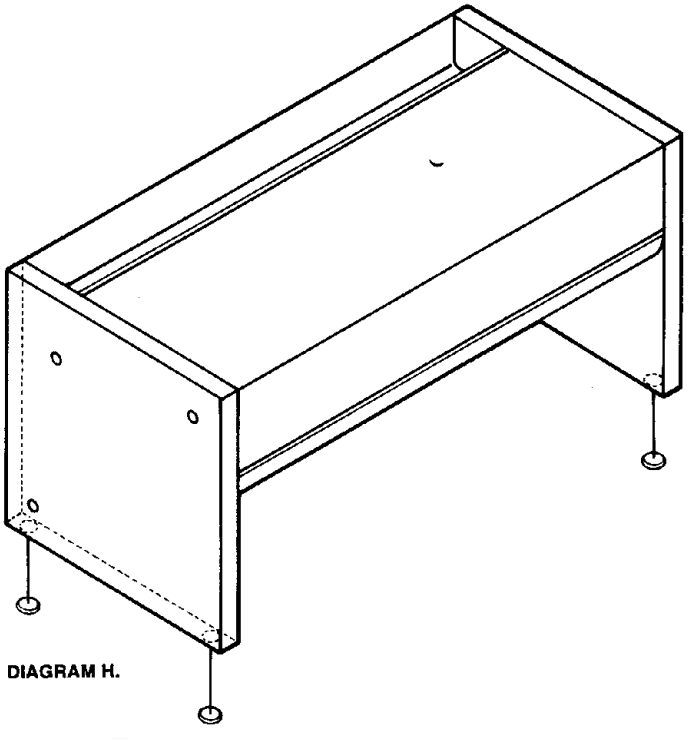


DIAGRAM H.

Subwoofer Input Panel

The black aluminum input panel located on the rear of the speaker contains all of the connections and controls to make your subwoofer work with your system.

FREQUENCY - selects the high frequency roll-off of the subwoofer to enable the subwoofer to integrate properly with your satellite system.

LEVEL - controls the volume level of the subwoofer so it can be balanced with your other speakers.

LOW LEVEL INPUT - connects the subwoofer directly to your preamplifier.

HIGH LEVEL INPUT - terminal strip which permits you to connect your power amplifier and satellites to the subwoofer.

A.C. POWER ON/OFF - switch that turns the subwoofer's built in power amplifier On and Off. Separate red LED indicates when power is "ON."

A.C. LINE CORD AND FUSE HOLDER - connects to the A.C. power cord and is fused for 120- volt, 60 Hz operation.

Connecting the Subwoofer

Your subwoofer may be installed in a number of ways. Read the following paragraphs carefully before you decide on the method best suited for your listening room.

1. The subwoofer may be fed by a signal taken directly from the audio outputs of your pre-amplifier. If your preamplifier has two sets of outputs, the installation will be relatively simple. If your preamplifier has only one set of outputs, it will be necessary to use a "Y" connector with shielded leads going to your power amplifier and another set going to the subwoofer. Although this method will yield satisfactory results, it is not preferred. These two installation possibilities are shown in Figure 1a and Figure 1b.

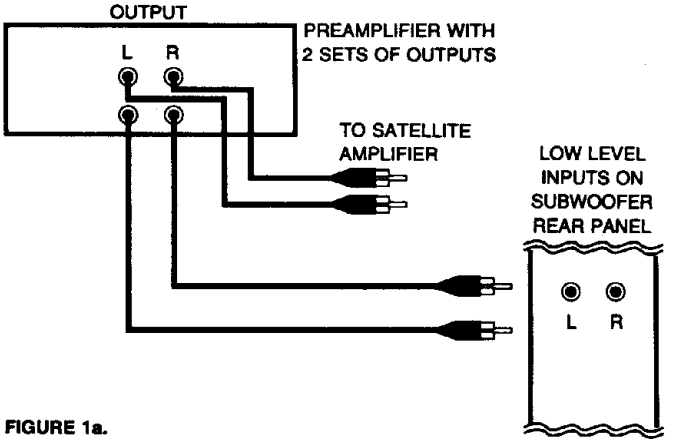


FIGURE 1a.

When connecting your subwoofer to the preamplifier outputs use high quality shielded leads terminated at each end with an RCA connector. Connect one end of each stereo pair of these shielded leads to your pre-amplifier's Left and Right outputs and the other end to the corresponding Left and Right LOW LEVEL INPUTS on your subwoofer's rear plate.

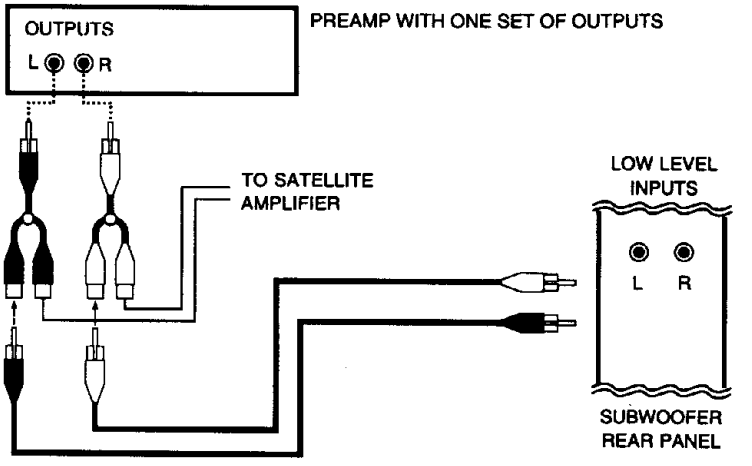


FIGURE 1b.

2. If you wish to wire your subwoofer from a receiver, integrated amplifier, video receiver or amplifier, use heavy gauge speaker connecting wire (number 10, 12, or 14 gauge) and connect the wire from the amplifier output of your component to the HIGH LEVEL INPUT terminals located on the rear of your subwoofer. Spade lugs have been provided to facilitate wiring to this terminal. See Figure 2.

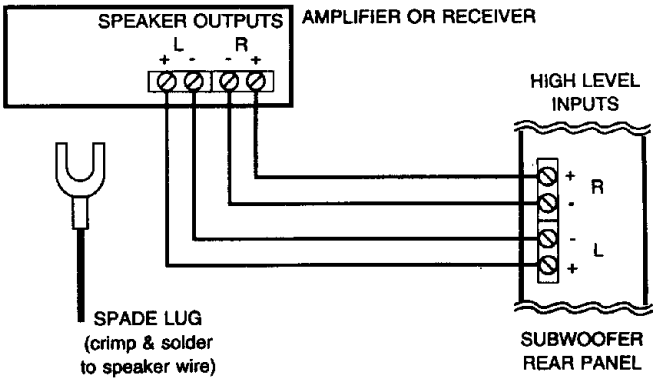
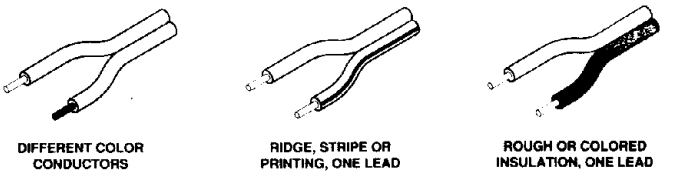


FIGURE 2.

NOTE: Observe polarity (+ and - designations) by paying careful attention to color or other markings on wire insulation.



To wire your satellites, connect them with heavy speaker cable (observe polarity) to the HIGH LEVEL INPUT terminals. Spade lugs have been provided to facilitate wiring to these terminals. See Figure 3.

If your stereo receiver, surround sound receiver or integrated amplifier includes two sets of speaker outputs (Speaker System 1 and Speaker System 2) you may connect the subwoofer to Speaker System 1 and your satellites to Speaker System 2 providing these speaker switches permit simultaneous operation of both speaker systems. See Figure 4.

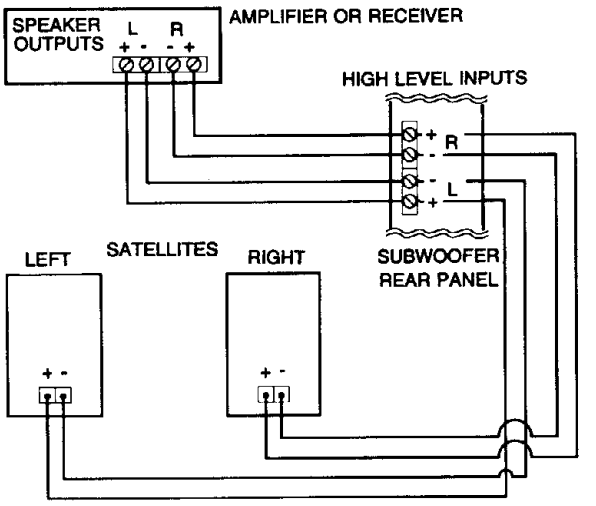


FIGURE 3.

Infinity subwoofers do not have built-in high pass filters which roll-off your satellite's lower frequencies. However, if you desire to roll-off the lower frequencies of your satellites to enable them to play louder or to prevent "bottoming" when reproducing very low bass frequencies at high power levels, discuss using the Infinity high pass filter designed for use with these subwoofers with your authorized Infinity dealer.

It should be pointed out that the purest sound obtainable is derived by not using a high pass filter (either passive or active) since this type of filter places components directly in the signal path. No matter how carefully these components are chosen, they will always influence sonic quality to some degree.

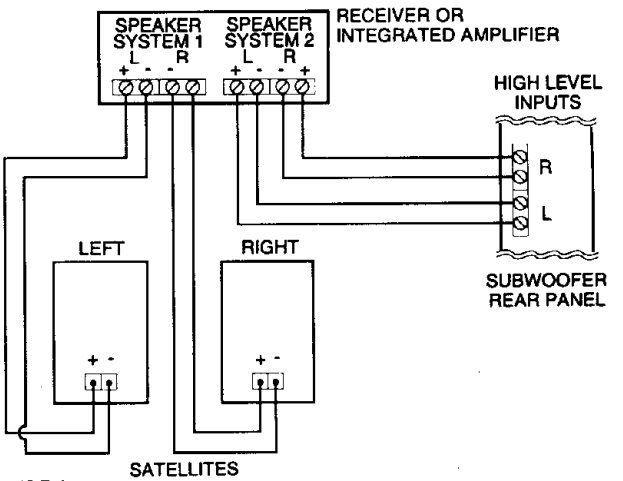


FIGURE 4.

Connecting the Subwoofer to an A.C. Outlet

Prior to connecting your subwoofer make sure the ON/OFF switch located on the rear aluminum panel is set to "OFF." The LEVEL control should be set to 1 and the FREQUENCY control should be set at its midway point of rotation.

You may connect the A.C. line cord of your subwoofer (supplied in the package) to either an A.C. wall receptacle or to one of the A.C. connections on the rear of your preamplifier, amplifier, or receiver. The subwoofer is fused for 120 volt, 60 Hz operation using a 5 amp 3AG slow blow fuse. It is not recommended to use these subwoofers with voltages exceeding 130 volts, 60 Hz. Higher voltages will cause excessive heat build up and can result in permanent damage to the power supply.

If you are connecting the subwoofer to a switched or non-switched A.C. outlet on your preamplifier or receiver, the wattage rating of the A.C. receptacle must be at least 300 watts.

Plug the A.C. cord into the wall socket and switch the subwoofer "ON". If a slight hum or buzz is heard upon turn-on, this is due to the charging of the power supply capacitors and is perfectly normal. It is not necessary to turn the subwoofer on and off each time you play your system; however, when you leave for an extended period of time, it is advisable to turn the subwoofer off as a precautionary measure.

Operating Your Subwoofer

After all connections are made, we recommend you recheck all wiring and polarity of the system.

Turn "ON" the subwoofer and play music with strong bass through your system. Slowly rotate the LEVEL control located on the rear aluminum panel from the number 1 setting to anywhere along its rotation that brings the sound of the subwoofer to a level where it blends with the satellites. Use this as your first reference setting.

As you listen to various types of program material (video, voice, rock, classical, jazz, etc.) you will undoubtedly want to readjust the LEVEL of the subwoofer so it balances properly "on average" with all types of music and voice. It may be necessary to readjust the LEVEL of the subwoofer from time to time for the best sonic balance with the satellites when a special recording or video is played.

Setting the LEVEL of the subwoofer is discretionary; however, always opt for seamless response between the subwoofer and the satellites. Readjustment of the LEVEL may become necessary after you have had the opportunity to listen to your system for several hours and you get a better idea of the system's balance. It is suggested to set the LEVEL of the subwoofer so it never overpowers the system. Many listeners make the mistake of adding too much bass which can become annoying and fatiguing.

Setting the Frequency Control

With the entire system playing music with a lot of bass, slowly rotate the FREQUENCY control until you hear a seamless transition between the satellites and subwoofer. This control rolls off the subwoofer's higher frequencies permitting you to integrate the sound from the satellites and subwoofer. As a rule of thumb, when you use small satellite speakers that are incapable of reaching lower frequencies without excessive strain, it is best to set the roll off at a higher frequency (90-120 Hz).

However if you are using the subwoofer to add bass to larger speakers, you may wish to set the FREQUENCY control anywhere between 60 and 85 Hz. If you are unsure of where this control should be set, use 70-85 Hz as a starting point and make minor readjustments as your listening progresses. Proper acoustic balance will be reached when the subwoofer and satellites blend within the listening room and do not sound like individual speakers.

Phasing

Since the satellites are rarely on the same plane as the subwoofer, lower frequencies may not reach your listening position at the correct time interval as the higher frequencies. At times, moving the satellites or subwoofer forward or rearward can create a more cohesive balance between these speakers, but if it is not possible to move your speakers, you can achieve similar results by reversing the wires on the rear of the satellites or subwoofer. When this is done, you may experience greater bass sound pressure in your listening room. By careful listening you must decide on which position (in or out of phase) yields the most natural and fullest bass.

When listening to the bass response of the overall system do not only listen to the deepest bass. It may be easier to judge whether the system should be in or out of phase by listening to the overtones of a bass violin, bass guitar or drums.

When reversing the leads to the satellites to check for the proper in or out of phase conditions, always reverse BOTH LEADS to both speakers. Reversing the phase of only one satellite will result in a cancellation of bass.

How to Change the A.C. Line Fuse

Disconnect the line cord from the AC outlet. The A.C. line cord and fuse holder are located on the rear aluminum panel. The fuse is mounted within the gray plastic cap and can be removed by pressing the latching mechanism with a small screwdriver or your fingernail. Remove the gray fuse holder and pop out the fuse. Replace only with the same fuse size that came with the subwoofer (5 amp, 3AG, Slow-Blow). Use of a larger size fuse will not protect the amplifier and will void the warranty.

Care of Your Subwoofer

Your Infinity subwoofer cabinet is finished with a heavy duty, high quality vinyl which requires very little maintenance. Keep the cabinet clean by dusting it occasionally with a damp cloth or use a good quality furniture polish to maintain its original luster. (When using aerosol products, always spray the cloth, not the speaker to help prevent any of the product from drifting onto the driver or amplifier.)

Feedback

If the bass seems boomy, or you notice a rumbling sound when listening to record albums, the cause may be acoustic feedback. this means that low frequency vibrations from your speakers are reaching the turntable. To help isolate the turntable from these vibrations, place the turntable on a heavy, solid support, as far away as possible from the subwoofer. If you continue to experience difficulties after experimenting with placement, consult your Infinity dealer.

In Case of Trouble With Your Subwoofer

If the subwoofer sounds distorted, stops playing, or otherwise seems to be malfunctioning, first determine if the problem is in the subwoofer or the wiring and/or other audio components. If the problem also affects the satellite speakers, the cause is most likely in your electronics. If it is only noticed in the subwoofer, make sure that all connecting cables are correct and in proper working condition, make sure the subwoofer is plugged in and turned on, and check its A.C. line voltage fuse. If everything seems to be in good working order and the subwoofer still malfunctions, DO NOT ATTEMPT ANY REPAIRS! Contact your Infinity dealer to obtain the name of the authorized Infinity service center near you. If there is no facility near you, contact Infinity's Customer Service Department at (818) 407-0228, or write: Infinity Customer Service, 9409 Owensmouth Avenue, Chatsworth, California 91311 (U.S.A.).

NOTE: DO NOT SHIP YOUR SUBWOOFER FOR SERVICE WITHOUT PRIOR APPROVAL ("RETURN AUTHORIZATION"), AND DO NOT SHIP WITHOUT ENCLOSING A COPY OF YOUR ORIGINAL BILL OF SALE.

Limited Warranty

Who is protected by the warranty? Your Infinity warranty protects the original retail purchaser and all subsequent owners, during the stated warranty period, from any failure as a result of an original manufacturing defect so long as: (1) your Infinity product was purchased within the fifty United States, or purchased by military personnel from an authorized military outlet, and (2) the original dated bill of sale is presented whenever service is required during the warranty period. This warranty does not apply to products purchased elsewhere; other purchasers should contact their local Infinity distributor for warranty information.

How long is the warranty period? Speaker components are covered for parts and labor for a period of five (5) years. Electronic assemblies are covered for parts and labor for a period of one (1) year.

What does the Infinity warranty cover? Except as specified below, this warranty covers all defects in original materials and workmanship. The following are not covered: damage caused by accident, misuse, abuse, neglect, product modification; damage occurring during shipment; damage caused by failure to follow instructions in the owner's manual, including failure to perform recommended periodic or routine maintenance; damage resulting from repairs by someone not authorized by Infinity; claims based upon any misrepresentations by the seller; and any Infinity product on which the serial number has been altered, defaced or removed.

Who pays for what? During the period that both parts and labor are covered by this warranty, Infinity will pay all of the labor and material expenses to repair a warrantable defect; during the period that parts ONLY are covered by this warranty, Infinity will pay for all materials to correct a warranted defect, but you must pay for the labor charges.

How can warranty service be obtained? In the event that your Infinity product requires service, you should first contact the Infinity dealer from whom the product was purchased or, if this is not practical, contact Infinity directly (ATTN: Customer Service) at 9409 Owensmouth Avenue, Chatsworth, CA 91311; (818) 407-0228; fax (818) 709-7496. We may direct you to an authorized service center for Infinity products or ask you to send them to us for repair. In either case, you must present your original dated bill-of-sale to establish warranty coverage. Do not send your product to us without prior authorization from our Customer Service Department.

You are responsible for transporting your product for repair and for payment of all shipping charges; however, Infinity will pay the return shipping charges (in the event you return the product to us) if the repairs are covered by warranty. If you experience difficulty in transporting your product or are in need of packing materials, please advise us and we may be able to suggest alternative procedures and/or provide adequate packing materials.

Limitation of Implied Warranties: All implied warranties, including fitness for a particular purpose and merchantability are limited in duration and length to the warranty period for your product.

Limitation of Incidental or Consequential Damages: Infinity is not responsible for any incidental or consequential damage of any kind. Our liability is limited to the repair or replacement, at our option, of a defective product. Some states do not allow limitations on how an implied warranty lasts and/or do not allow the exclusion of incidental or consequential damage, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

NOTE: In the event that there is a difference between this warranty and the provisions in any advertisements, product brochures or packaging cartons, the terms of this warranty will prevail.

Infinity®

We get you back to what it's all about. Music.

Infinity strives constantly to update and improve existing products, as well as create new ones, therefore, the specifications and construction details in this and related INFINITY publications are subject to change without notice.

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(818) 407-0228 Fax (818) 709-9486

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